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(54) Alleviation of bodily discomfort

(57) To alleviate the bodily discomfort of a person suffering from a painful nervous or muscular condition such as arthritis or multiple sclerosis, and to protect the body against adverse magnetic or electrostatic influences, a shield is provided for surrounding at least a part of that body, the shield being of a non-ferrous, non-magnetic electrically conductive material. The shield is preferably used in the absence of any ferrous or other magnetic material in close proximity to the body. The shield may be incorporated in, or be a coating on an article of clothing or furniture or a wall covering or a motor vehicle and may be aluminium, copper, zinc or an alloy of such a metal. Alternatively the shield may be applied directly to the body as a coating, of a non-ferrous, non-magnetic electrically conductive substance dissolved or dispersed in a solvent or ointment base, or may comprise water containing salts and contained in a bag adapted to be worn by the person. Electrostatic charger may be removed by connecting the shield to ground, at least intermittently.

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## SPECIFICATION

## Alleviation of bodily discomfort

5 This invention relates to the alleviation of bodily discomfort of a person suffering from a painful or nervous or muscular condition such as arthritis or multiple sclerosis.

This invention also relates to a substance for use  
10 in a method as aforesaid.

In accordance with the invention it has been found that the application of aluminium or like metal, in metallic form, in contact with or in close proximity to the human body can be useful in the treatment of  
15 arthritis.

The invention provides a method of alleviating the bodily discomfort of a person suffering from a painful nervous or muscular condition such as arthritis or multiple sclerosis comprising surrounding at least a  
20 part of that person's body with a shield of a non-ferrous, non-magnetic electrically conductive material, and maintaining such shield in position until said discomfort is substantially alleviated.

When for example, aluminium, is used in this way  
25 it has been found that pain and discomfort can be appreciably alleviated, and although the reason for this beneficial effect is not at present understood, it is believed that by protecting the body against adverse magnetic or electrostatic influences the  
30 effects of the condition are alleviated.

The metallic aluminium or other metal such as copper or zinc may consist wholly or substantially wholly of elemental aluminium or the like, or alternatively the metal may be alloyed or otherwise combined with other metals or substances.  
35

The shield may be in any suitable physical form and thus for example may be in sheet, wire, fragmentary or particulate form. Such form may be a coherent, self-support structure, such as a metal foil,  
40 a metal plate, a wire mesh or the like. Alternatively, the shield may be applied to an auxiliary supporting structure or medium; for example, the shield may be in the form of a thin film, coating, paint or the like applied to a backing layer which may be a fabric,  
45 plastics sheet, paper sheet or the like; or may be in the form of fragments secured to a backing layer, interconnected by means of an adhesive or other medium or otherwise united; or may be in the form of fragments or particles impregnating or interspersed in a supporting material, such as aluminium  
50 fibres combined with other fibres in a fabric.

The physical form of the shield will, of course, be in accordance with the desired mode of application to the body of the person to be treated. Thus, it is  
55 visualised that the shield, whether self-supporting or supported, will in most cases be of thin flexible sheet form suited to comfortable close juxtaposition to the body.

In this respect, the sheet may be worn simply by  
60 insertion under clothing next to or close to the skin. In this case, to facilitate location of the sheet, attachment means may be provided for holding the sheet to the skin or to an item of clothing: for example, adhesive tabs, or an adhesive coating, or fasteners  
65 (such as Velcro fasteners, press-stud fasteners or the

like), or a holding strap or band, may be provided. Alternatively, the sheet may be incorporated in an item of clothing: for example, one surface of clothing may have the sheet laminated or secured as a  
70 lining thereto or formed by coating or spraying thereon or otherwise applied thereto; or said sheet may be incorporated as an inserted panel in said clothing.

Said sheet may be located next to or be applied to  
75 or incorporated in any suitable item of clothing including: underclothing, shirts, jackets, outer-clothing, gloves, scarves, footwear, headgear. In the case where the sheet is to be worn next to the skin, the sheet may have an appropriate covering thereto,  
80 for example, a soft fabric covering, for the sake of comfort.

Whilst the use of the metal in thin flexible sheet form may be preferred as mentioned above, it is to be understood that the invention is not limited to be  
85 restricted to this feature and thus other forms may be used. For example, metal plates, strips or wires, or fragments or particles may be used as inserts in shoes, hats or other items of clothing or may be incorporated in items of clothing or may be applied  
90 to or incorporated in or may comprise supports for application to the body, for example, bandages, belts, bracelets and the like.

In accordance with the invention, the shield may be applied in close proximity to any part or parts of  
95 the body. It has however been found that, irrespective of the site of the afflicted part of the body, it may be advantageous to position the shield between the shoulder blades or closely above such region, particularly at the back of the neck or on top of the head.

It may be sufficient to use a small piece of, for  
100 example, aluminium, at one locality, for example a sheet of aluminium placed over the head and worn within a hat, a strip or sheet of aluminium embodied in a scarf, a patch applied across the shoulders or the  
105 like. Alternatively multiple pieces, or a large piece, which may for example take the form of an item of clothing such as an aluminium jacket, may be used. The aluminium or like metal may be worn continuously or only when required for the alleviation of  
110 pain. The shield may be applied firmly to the body so as to extend closely over the surface of the body following, or substantially following, the contours of the body, whether or not in contact therewith. Alternatively, the shield may be arranged in any other  
115 suitable disposition relative to the body.

Whilst particular reference has been made herein to the treatment of arthritis it is to be understood that it may be possible to alleviate other afflictions of the muscles or joints or nervous system or other conditions, in like manner. In this respect, it has been  
120 found that the method may give rise to alleviation of tension and hence alleviation of pain caused or aggravated by tension.

Also, whilst reference has been made throughout  
125 to the use of aluminium or like metal it is to be understood that it may be possible to alleviate the effects of arthritis or other conditions with other metals or other substances, maintained in close proximity to the body. In particular, it has been found  
130 that the metals copper and zinc and also water can

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be particularly useful. In the case where water is used, this may contain salts, for example common salt, copper sulphate or the like, and may be provided in a suitable container, for example, a plastics bag adapted to be worn by the person.

- 5 The substance used in accordance with the invention may be applied directly to the skin and in this case it is possible to use the substance in a form suited to intimate adherence of same to the skin.
- 10 Thus, the substance may be dissolved or dispersed in a suitable medium such as a solvent or ointment base or the like whereby the substance can be applied directly to the skin by spreading, spraying or the like.

- 15 Where the substance is not to be applied directly to the skin, it is to be understood that the invention is not intended to be restricted to the incorporation or insertion of same in clothing. Instead, if desired, the substance may be incorporated in or applied to other articles such as furniture including chairs, car seats, beds, cushions and the like. The substance may also be incorporated in a wall covering, for example, wall paper or paint, or in a lining for the passenger compartment of a motor vehicle.

- 25 It has been found that the method is particularly useful if performed in the absence of any ferrous or other magnetic metal in close proximity to the body. For this reason the articles hereinbefore mentioned such as shoes, chairs, belts, buckles and the like preferably have no ferrous or other magnetic material incorporated therein.

- It can also be advantageous if the shield or an electrically conductive extension thereof, contacts the ground, at least intermittently, thus to discharge any build-up of electrostatic charge on the body.

#### CLAIMS

1. A method of alleviating the bodily discomfort of a person suffering from a painful nervous or muscular condition such as arthritis or multiple sclerosis comprising surround at least a part of that person's body with a shield of a non-ferrous, non-magnetic electrically conductive material, and maintaining such shield in position until said discomfort is substantially alleviated.
2. A method of protecting the human body against adverse magnetic or electrostatic influences comprising surrounding at least part of that body with a shield of a non-ferrous, non-magnetic electrically conductive material.
3. A method according to claim 2, comprising contacting the ground, at least intermittently, with said shield or a non-ferrous, non-magnetic electrically conductive extension thereof.
4. A method according to any one of the preceding claims which is performed in the absence of any ferrous or other magnetic material in close proximity to the body.
5. A method according to any one of claims 1 to 4 comprising coating the body with said material in the form of a solute or dispersion in a base material.
6. A method according to any one of claims 1 to 4, wherein the shield is incorporated in an item of clothing.
7. A method according to any one of claims 1 to 4, wherein the shield is incorporated in an item of

furniture.

8. A method of alleviating the bodily discomfort of a person suffering from a painful nervous or muscular condition substantially as hereinbefore described.

9. A substance, for use in performing the method of any one of claims 1 to 4, the substance being in the form of a shield surrounding at least a part of the body, said shield being of a non-ferrous, non-magnetic, electrically conductive material.

10. A substance according to claim 9, wherein the material is aluminium, or an alloy thereof.

11. A substance according to claim 9, wherein the material is copper, or an alloy thereof.

12. A substance according to claim 9, wherein the material is zinc, or an alloy thereof.

13. A substance according to any one of claims 9 to 12, wherein the shield is a sheet or mesh of said material in the form of an article of clothing.

14. A substance according to any one of claims 9 to 12, wherein the shield is incorporated in an article of clothing.

15. A substance according to claim 14, wherein the shield is a coating on the article of clothing.

16. A substance according to claim 15, wherein the shield is a paint layer on the article of clothing.

17. A substance according to claim 14, wherein the shield is in the form of fragmentary material impregnated into the material of the article of clothing.

18. A substance according to claim 14 wherein the shield is in the form of fragmentary material adhesively secured to the material of the article of clothing.

19. A substance according to claim 14, wherein the shield is in the form of a thread knitted or woven into the material of the article of clothing.

20. A substance according to claim 14, wherein the shield is in sheet or mesh form and is inserted into an article of clothing.

21. A substance according to any one of claims 13 to 20, wherein the article of clothing comprises underwear.

22. A substance according to any one of claims 13 to 20, wherein the article of clothing comprises a jacket or coat.

23. A substance according to any one of claims 13 to 20, wherein the article of clothing comprises headgear.

24. A substance according to any one of claims 13 to 20 wherein the article of clothing comprises footwear.

25. A substance according to any one of claims 9 to 12, wherein the shield is incorporated in a wall covering.

26. A substance according to any one of claims 9 to 12, wherein said shield in use extends so as to contact, at least intermittently, the ground.

27. A substance according to claim 4, wherein the substance is water and the shield is in the form of a bag containing said water and adapted to be worn by the body.

28. A substance according to claim 24 wherein the footwear has no ferrous metal therein and has an insert therein in the form of a sheet of said sub-

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stance.

29. A substance according to any one of claims 9 to 12, wherein the shield comprises material in the form of a solute or dispersion in a base material applied directly to the body.

30. A substance according to any one of claims 9 to 12, wherein the shield is incorporated in seating means having no ferrous or magnetic material therein.

31. A substance according to any one of claims 9 to 12, wherein the shield is incorporated in a bed having no ferrous or magnetic material therein.

32. A substance according to any one of claims 9 to 12, wherein the shield is incorporated in a passenger compartment of a motor vehicle.

33. A substance for use in alleviating the bodily discomfort of a person suffering from a painful nervous or muscular condition substantially as hereinbefore described.

34. A shield for use in performing the method of any one of claims 1 to 4, which is incorporated in an item of clothing or furniture, said item containing no ferrous or magnetic material and said shield being of a non-ferrous, non-magnetic electrically conductive material.

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